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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,114	03/08/2005	Coen Theodorus Hubertus Fransiscus Liedenbaum	NL 020820	9522

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER
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RAABE, CHRISTOPHER M

ART UNIT	PAPER NUMBER
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2879

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/06/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/527,114

Applicant(s)

LIEDENBAUM, COEN  
THEODORUS HUBERTUS FRA

Examiner

Christopher M. Raabe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/8/05, 11/16/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-7,9,10 are rejected under 35 U.S.C. 102(e) as being anticipated by Arnold et al. (USPN 2004/0036421).

With regard to claim 1,

Arnold et al. disclose an Electroluminescent device comprising at least one picture element, said at least one picture element comprising a plurality of electroluminescent sub-pixels capable of emitting light when subject to electric current, the sub-pixels each having a degradation lifetime and an emissive area (fig 5), characterized in that, for any pair of first and second sub-pixels in a picture element, the ratio between the first sub-pixel emissive area and the second sub-pixel emissive area is inversely proportional to the ratio between the degradation lifetime of said first sub-pixel and the degradation lifetime of the second sub-pixel (paragraphs 21-25,34).

With regard to claim 2,

Arnold et al. disclose the device as claimed in claim 1, where any of said sub-pixel emissive areas comprises a plurality of discrete emissive area parts (fig 5).

With regard to claim 3,

Arnold et al. disclose the device as claimed in claim 1, where said ratio between the first sub-pixel emissive area ( $A_1$ ) and the second sub-pixel emissive area ( $A_{\text{sub.2}}$ ) follows the relation:  $A_1/A_2 = (\gamma_2/\gamma_1) (\eta_2/\eta_1) (\alpha_1/\alpha_2)$  where  $\gamma$ ,  $\eta$  and  $\alpha$ , with index 1 representing the first sub-pixel and index 2 representing the second sub-pixel, are respective measurable material parameters, where  $\eta$  represents the efficiency of conversion of electric current to light,  $\gamma$  is a scaling factor depending on the efficiency, brightness and lifetime, and  $\alpha$  is, in units of total output light by the picture element, the fraction emitted by the respective sub-pixel (paragraphs 21-25, 34).

With regard to claim 4,

Arnold et al. disclose the device as claimed in claim 1, where said at least one picture element comprises three sub-pixels, said sub-pixels being denoted R-, G- and B-sub-pixel, respectively, and where the relation between the areas  $A_R$ ,  $A_G$  and  $A_B$  of respective R-, G- and B-sub-pixels follows from the relation:  $(\gamma_R \eta_R A_R)/\alpha_R = (\gamma_G \eta_G A_G)/\alpha_G = (\gamma_B \eta_B A_B)/\alpha_B$  (paragraphs 21-25, 34).

With regard to claim 5,

Arnold et al. disclose the device as claimed in claim 1, where the sub-pixels comprise electroluminescent organic material (paragraph 1).

With regard to claim 6,

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Arnold et al. disclose the device as claimed in claim 5, where the organic material includes electroluminescent polymer (paragraph 38).

With regard to claim 7,

Arnold et al. disclose the device as claimed in claim 5, where the organic material includes electroluminescent low molecular weight material (paragraph 75).

With regard to claim 9,

Arnold et al. disclose the device as claimed in claim 1, where the at least one picture element is arranged to provide illumination (fig 5).

With regard to claim 10,

Arnold et al. disclose the device as claimed in claim 1, where the at least one picture element is arranged in a matrix configuration in a colour display unit (fig 5).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold et al. (as above).

With regard to claim 8,

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Arnold et al. disclose the device as claimed in claim 1.

Arnold et al. do not disclose where the sub-pixels comprise electroluminescent inorganic material. However the use of inorganic electroluminescent material in a color light emitting display such as that of Arnold et al. was well known to those of ordinary skill in the art at the time of the invention, and the practice disclosed by Arnold et al. would benefit an inorganic device just as well as an organic device by improving lifetime, and hence the two would have been obvious to combine in order to improve the lifetime of such devices.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 6747618.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Raabe whose telephone number is 571-272-8434. The examiner can normally be reached on m-f 7am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CR

Ashok  
Ashok PATEL  
PRIMARY EXAMINER